



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
)
Kenneth W. COWANS) Art Unit: 3747
)
Application No.: 10/694,770)
)
Filed : October 29, 2003)
)
For : HIGH EFFICIENCY ENGINE)
WITH VARIABLE COMPRESSION)
RATION AND CHARGE (VCRC)
ENGINE)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with 37 CFR 1.97 (b) (1), the accompanying materials, as set forth on the enclosed forms PTO-1449, are brought to the attention of the Examiner.

In accordance with 37 CFR 1.98 (d) (1) and (d) (2), copies of these materials are not being submitted. The subject U.S. patent application is a division of prior application 09/995,674, filed November 29, 2001, and claims priority to that prior application. The Information Disclosure Statement and the Supplemental Information Disclosure Statement filed in that prior application both complied fully with paragraph (a) through (c) of 37 CFR 1.98. The various other references set forth on the enclosed PTO-1449 forms were cited by the Examiner during the prosecution of the parent application.

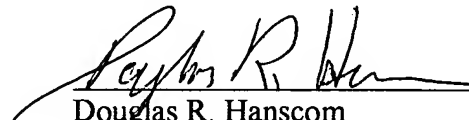
Entry of this Information Disclosure Statement into the file of the subject U.S. patent application and its consideration by the Examiner, is respectfully requested.

Respectfully submitted,

Kenneth W. COWANS
Applicant

JONES, TULLAR & COOPER, P.C.

JONES, TULLAR & COOPER, P.C.
Attorneys for Applicant
P.O. Box 2266 Eads Station
Arlington, Virginia 22202
(703) 415-1500



Douglas R. Hanscom
Reg. No. 26,600

Please type a plus sign (+) inside this box → +

PTO/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO <h2 style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center;">(use as many sheets as necessary)</p>		<h3 style="text-align: center;">Complete if Known</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>10/694,770</td> </tr> <tr> <td>Filing Date</td> <td>October 29, 2003</td> </tr> <tr> <td>First Named Inventor</td> <td>Kenneth W. COWANS</td> </tr> <tr> <td>Group Art Unit</td> <td>3747</td> </tr> <tr> <td>Examiner Name</td> <td></td> </tr> <tr> <td>Attorney Docket Number</td> <td></td> </tr> </table>		Application Number	10/694,770	Filing Date	October 29, 2003	First Named Inventor	Kenneth W. COWANS	Group Art Unit	3747	Examiner Name		Attorney Docket Number	
Application Number	10/694,770														
Filing Date	October 29, 2003														
First Named Inventor	Kenneth W. COWANS														
Group Art Unit	3747														
Examiner Name															
Attorney Docket Number															
Sheet <u>2</u>	of <u>4</u>														

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		4,987,863		Paul D. Daly	01/29/1991	
		5,115,775		David J. Gruenwald	05/26/1992	
		5,195,469		Ahmed Syed	03/23/1993	
		5,730,099		George T. Gillespie	03/24/1998	
		5,832,892		Yasuhito Yaoita	11/10/1998	
		5,857,450		Richard E. Staerzl	01/12/1999	
		5,934,228		Fred O. Wheat	08/10/1999	
		6,029,452		Edward M. Halimi et al.	02/29/2000	
		6,055,954		Yoshihiro Takada et al.	05/02/2000	
		6,095,111		Minoru Ueda et al.	08/01/2000	
		6,125,801		Edward Charles Mendler	10/03/2000	
		6,155,212		Roy E. McAlister	12/05/2000	
		6,305,346		Minoru Ueda et al.	10/23/2001	
		4,033,304		Luria	07/05/1977	
		4,516,537		Nakahara et al.	05/14/1985	
		6,260,520		Van Reatherford	07/17/2001	
		4,860,711		Morikawa	08/1989	
		6,302,067		Merritt	10/2001	
		4,715,347		Hampton et al.	12/1987	
		5,803,026		Merritt et al.	09/1998	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

+

Substitute for form 1449A/PTO

(use as many sheets as necessary)

Sheet 3 of 4

Application Number	10/694,770
Filing Date	October 29, 2003
First Named Inventor	Kenneth W. COWANS
Group Art Unit	3747
Examiner Name	
Attorney Docket Number	

[illegible][illegible]Date
Considered

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

+

Please type a plus sign (+) inside this box → +

PTO/SB/08B (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known	
		Application Number	10/694,770
		Filing Date	October 29, 2003
		First Named Inventor	
		Group Art Unit	3747
		Examiner Name	
Sheet 4	of 4	Attorney Docket Number	

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ²	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Ricardo, Sir Harry R.; The High-Speed Internal-Combustion Engine; pgs. 9, 107,102,104,105, 368, 369; "Blackie & Son Limited"; London and Glasgow	
		Should We Have A New Engine?; An Automobile Power Systems Evaluation; pgs. 10-3, 10-30; Vol. II Technical Reports; "Jet Propulsion Laboratory", California Institute of Technology	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.